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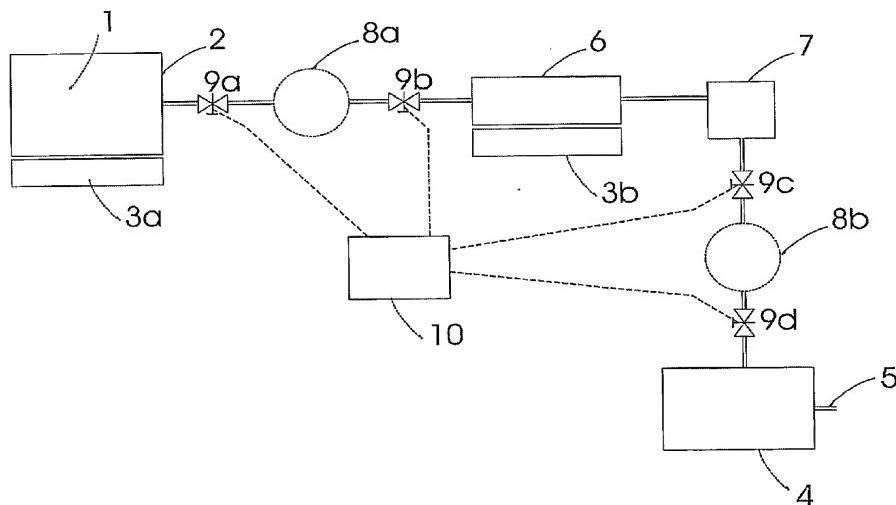
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(54) Title: USE OF AN AMMONIA STORAGE DEVICE IN PRODUCTION OF ENERGY



WO 2005/091418 A3

(57) **Abstract:** An electric power generating unit comprising (i) an ammonia storage device in the form of a container (2) comprising an ammonia absorbing and releasing salt of the general formula: $M < sb > a < / sb > (NH < sb > 3 < / sb >) < sb > n < / sb > X < sb > z < / sb >$, wherein M is one or more cations selected from alkali metals, alkaline earth metals, and transition metals such as Li, K, Mg, Ca, V, Cr, Mn, Fe, Co, Ni, Cu or Zn, X is one or more anions selected from fluoride, chloride, bromide, iodide, nitrate, thiocyanate, sulphate, molybdate, phosphate, and chlorate ions, a is the number of cations per salt molecule, z is the number of anions per salt molecule, and n is the coordination number of 2 to 12. (ii) means (3a) for heating said container (2) and ammonia absorbing and releasing salt for releasing ammonia gas and (iiiia) a fuel cell for converting ammonia directly into electric power; or (iiib1) a reactor (6) for dissociating ammonia into hydrogen and nitrogen and (iiib2) a fuel cell (4) for converting hydrogen into electric power.



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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, CHEM ABS Data, INSPEC, COMPENDEX

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
Y	US 2003/219371 A1 (AMENDOLA STEVEN C) 27 November 2003 (2003-11-27) paragraphs [0007] - [0019], [0030] - [0038] ----- FR 1 421 033 A (GOUVERNEMENT DES ETATS-UNIS D'AMERIQUE REPRESENTE PAR L'ADMINISTRATION) 10 December 1965 (1965-12-10) page 2, column 2, paragraph 5 - page 3, column 2, paragraph 1 claims 1,2 ----- -/-	1-20
Y		1-20

Further documents are listed in the continuation of box C

Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	<p>LIU CHUN YI ET AL: "Ammonia Absorption on Alkaline Earth Halides as Ammonia Separation and Storage Procedure" BULL. CHEM. SOC. JPN.; BULLETIN OF THE CHEMICAL SOCIETY OF JAPAN 2004, vol. 77, no. 1, 2004, pages 123-131, XP002369290 page 123, paragraph 1 - page 124, paragraph 2 page 125, paragraph 2 - page 128, paragraph 5</p> <p>-----</p>	1-20
A	<p>WOJCIK A ET AL: "Ammonia as a fuel in solid oxide fuel cells" JOURNAL OF POWER SOURCES, ELSEVIER, AMSTERDAM, NL, vol. 118, no. 1-2, 25 May 2003 (2003-05-25), pages 342-348, XP004425701 ISSN: 0378-7753 page 342, column 1, paragraph 1 - page 343, column 2, paragraph 5 page 347, column 1, paragraph 3 - page 347, column 2, paragraph 1</p> <p>-----</p>	1-7, 15, 16, 19, 20
A	<p>US 4 848 994 A (ROCKENFELLER ET AL) 18 July 1989 (1989-07-18) column 1, line 26 - column 2, line 62</p> <p>-----</p>	1-20
A	<p>US 2001/053342 A1 (MARKO ARMIN ET AL) 20 December 2001 (2001-12-20) paragraphs [0003], [0014] - [0019], [0025] - [0033]</p> <p>-----</p>	1-20
A	<p>US 2001/042378 A1 (PFISTER DENNIS M ET AL) 22 November 2001 (2001-11-22) paragraphs [0002], [0010], [0011], [0015] - [0027]</p> <p>-----</p>	1-20